

(19) World Intellectual Property
Organization
International Bureau



23 DEC 2004



(43) International Publication Date
31 December 2003 (31.12.2003)

PCT

(10) International Publication Number
WO 2004/001409 A2

- (51) International Patent Classification⁷: **G01N 33/50**
- (21) International Application Number:
PCT/IL2003/000536
- (22) International Filing Date: **25 June 2003 (25.06.2003)**
- (25) Filing Language: **English**
- (26) Publication Language: **English**
- (30) Priority Data:
60/390,886 25 June 2002 (25.06.2002) US
- (71) Applicant (*for all designated States except US*): **YISSUM RESEARCH DEVELOPMENT COMPANY OF THE HEBREW UNIVERSITY OF JERUSALEM [IL/IL];**
Hi Tech Park, Edmond Safra Campus, Givat Ram, 91390 Jerusalem (IL).
- (72) Inventor; and
- (75) Inventor/Applicant (*for US only*): **HOCHMAN, Jacob**
[IL/IL]; 20 Gelber Street, 96755 Jerusalem (IL).
- (74) Agent: **REINHOLD COHN AND PARTNERS; P.O.**
Box 4060, 61040 Tel-Aviv (IL).
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:**
— *without international search report and to be republished upon receipt of that report*
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: **METHOD FOR SCREENING MODULATORS OF THE IMMUNE SYSTEM**

(57) Abstract: A method for determining whether a factor is a modulator of the transmission of immunity from a female mammal to newborn mammals by consumption of milk from the female. A female mammal, such as a BALB/C female mouse, is exposed to the factor, and then immunized to one or more antigens. The female is then made to lactate, and newborn mammals are allowed to consume milk obtained from the lactating female. The newborns are then inoculated with the one or more antigens. The level of immunity in the newborns to the one or more antigens is then compared to that in control newborns that received milk from a female that was immunized against the one or more antigens but not exposed to the factor. A difference between the level of immunity to the one or more antigens in the experimental newborns and the control newborns is indicative that the factor is a modulator of the transmission of immunity to the one or more antigens from a female mammal to newborn mammals by consumption of milk from the female.

WO 2004/001409 A2